

4 Fibers x 300 Colors = 1200 FiberColors per Area Code  
 1200 FiberColors x 8.33 GHz / 400,000 User Nodes = 25 MHz per User

FIG. 1

8

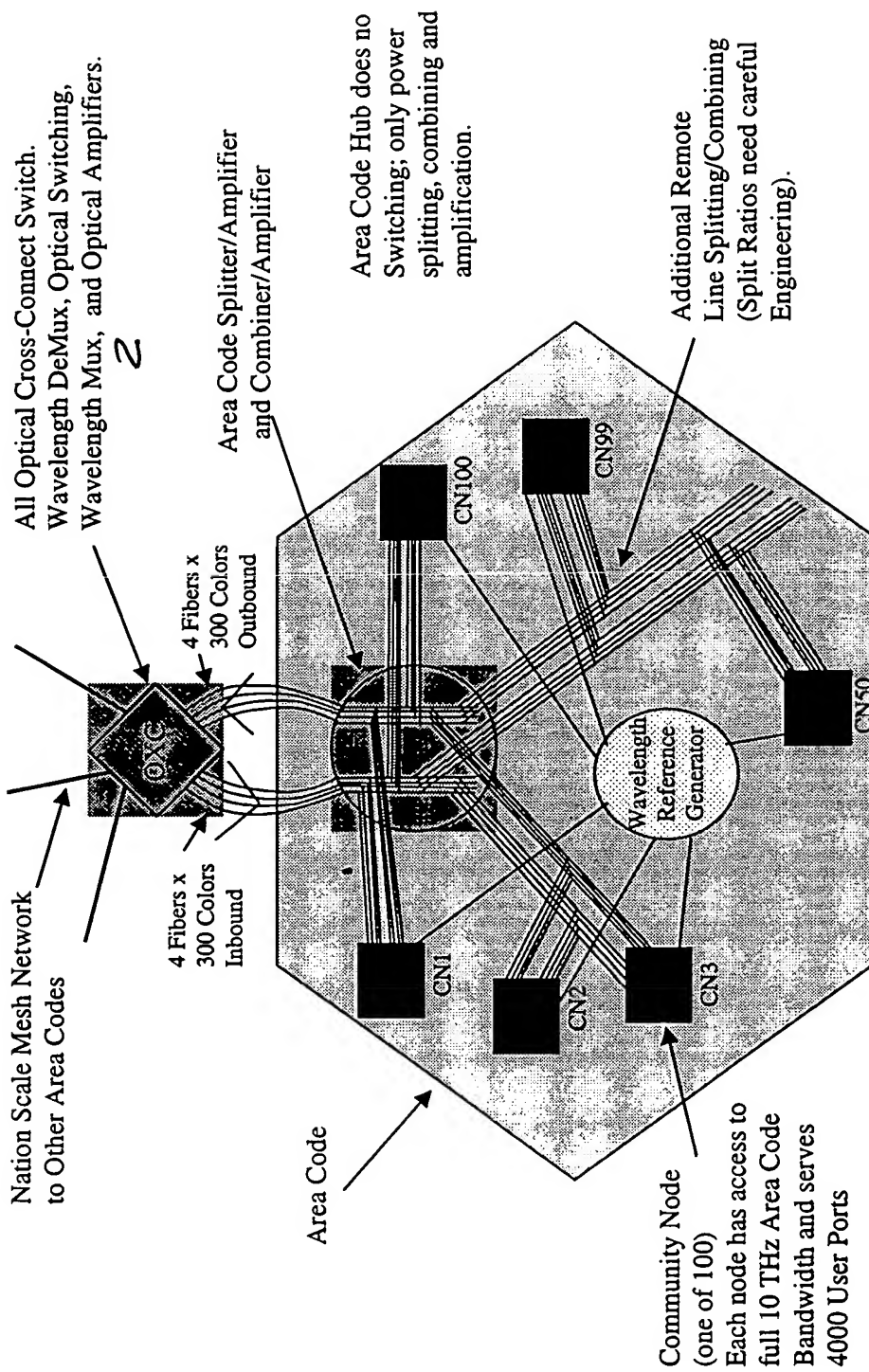


FIG. 2

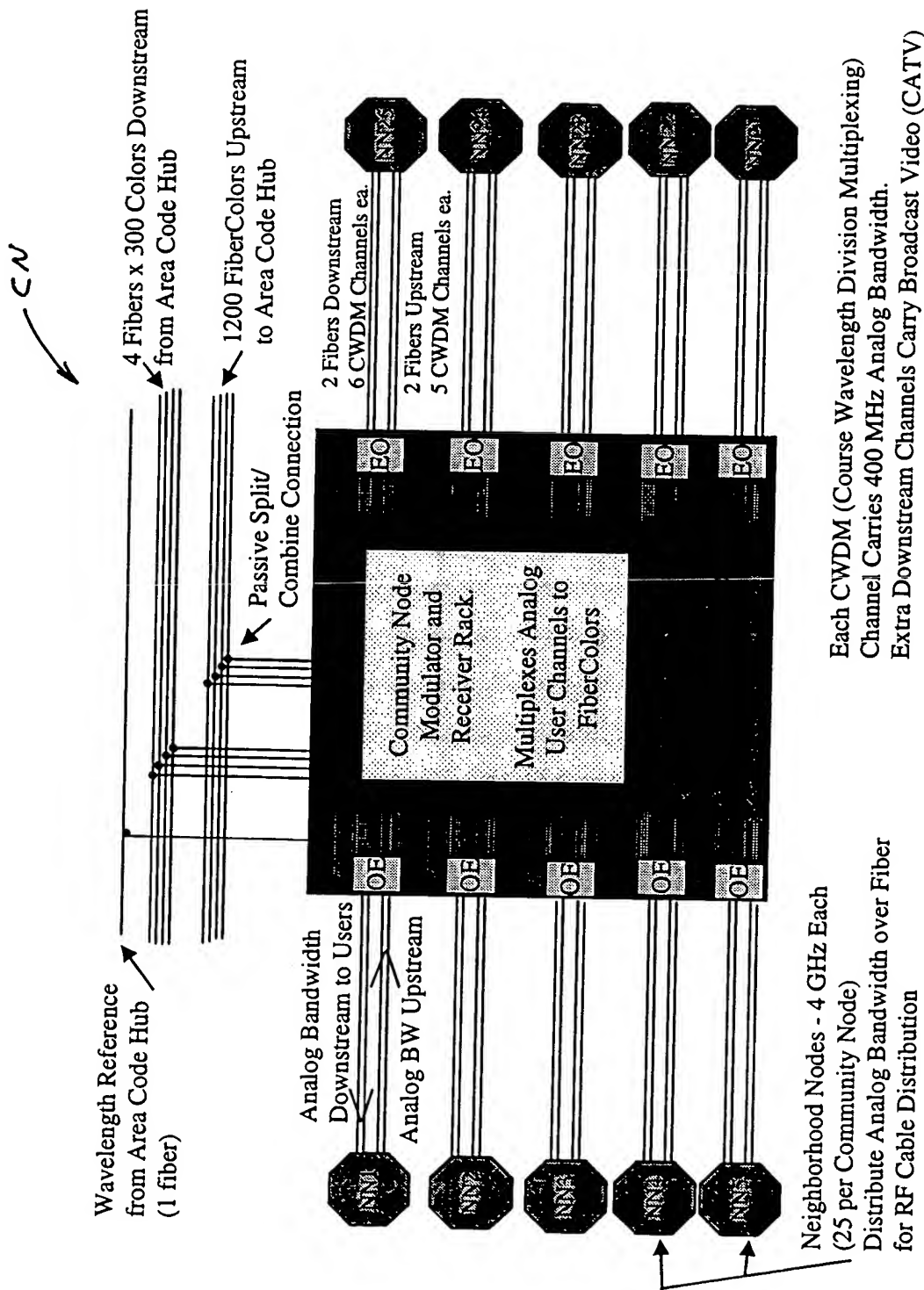


FIG. 3

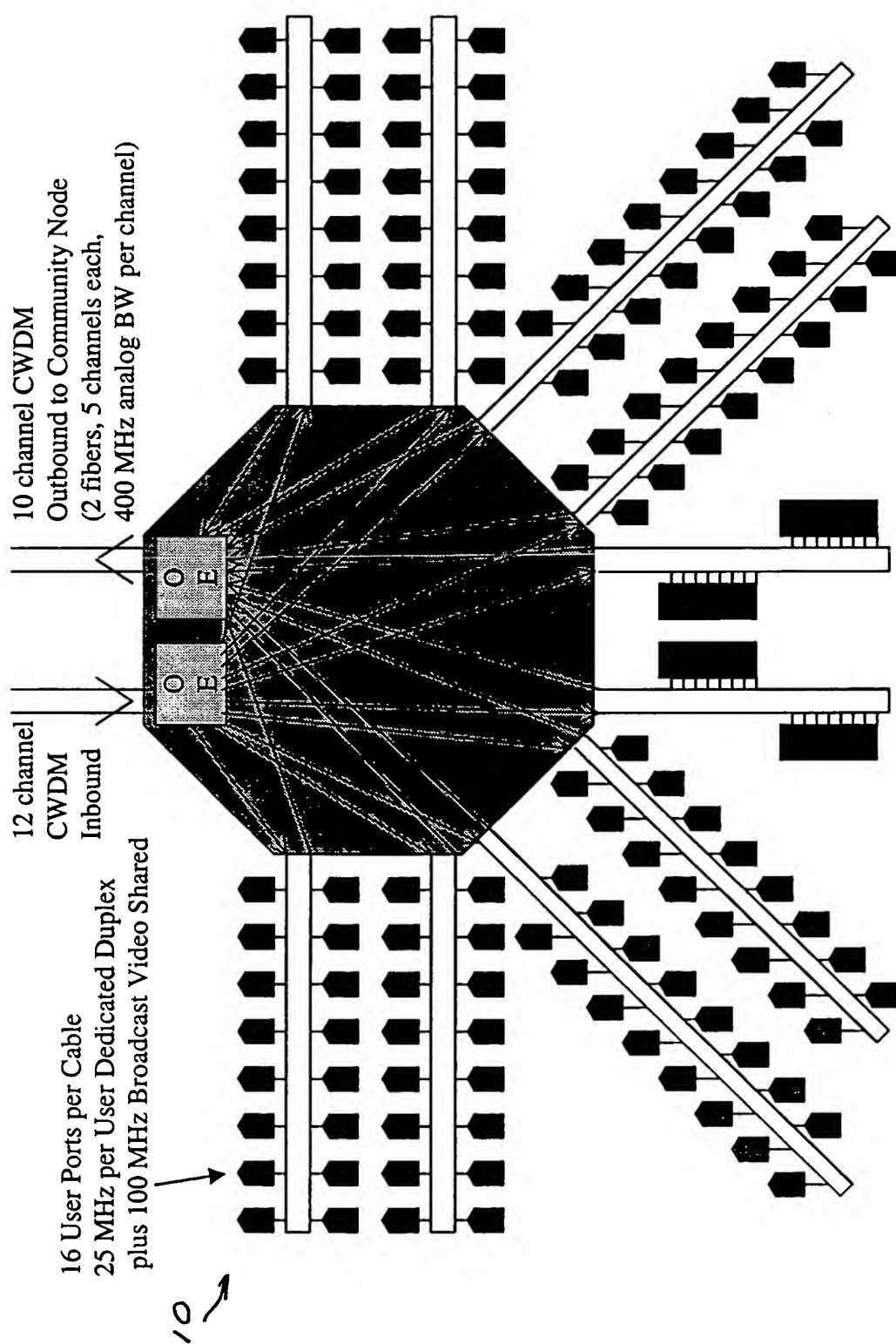


FIG. 4

- Accurate Laser Wavelength Comb Generated at Area Code Node
  - Or Regenerated from Central Network Reference Source
- Standard WDM 50 GHz spacings used, to allow straightforward wavelength demux and mux in network
- More accurate wavelength control (frequency to 500 MHz) used within area code.
- Source wavelengths either from multi-frequency fiber lasers, or from modulated DWDM lasers

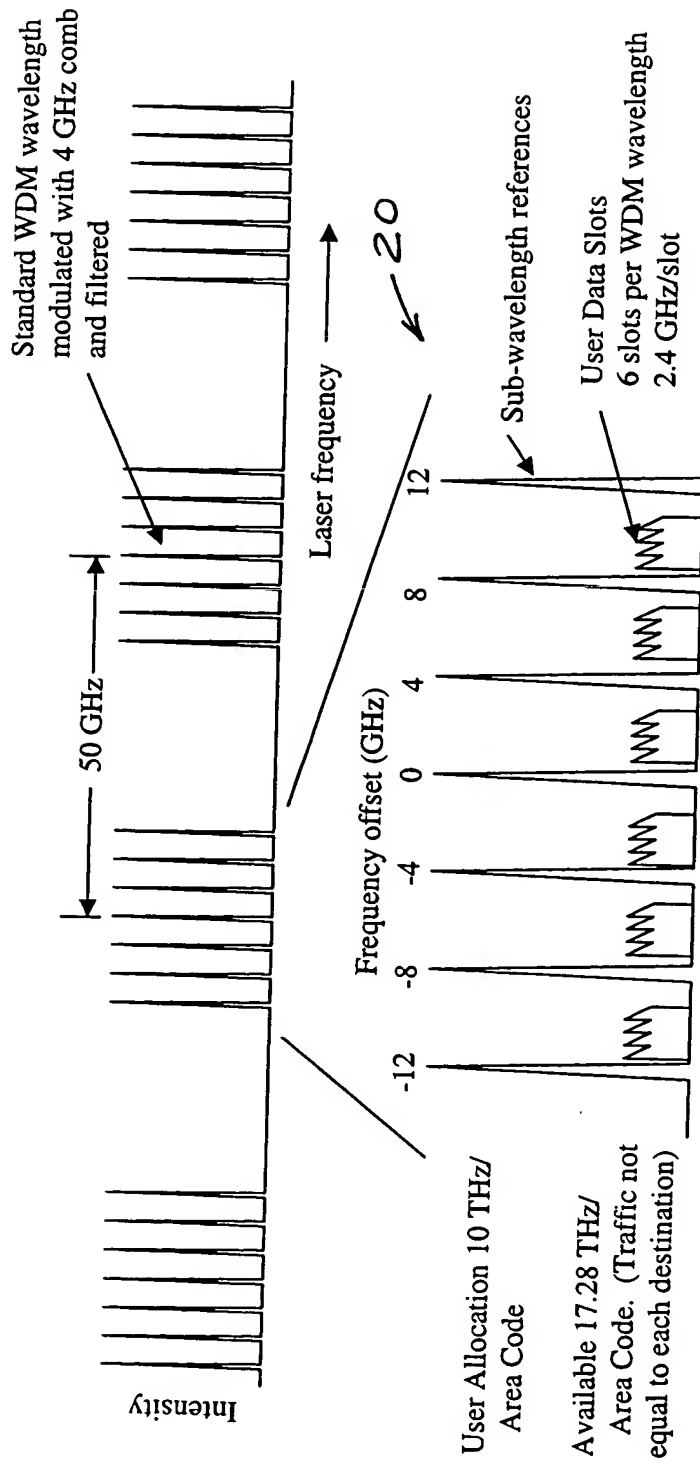


FIG. 5

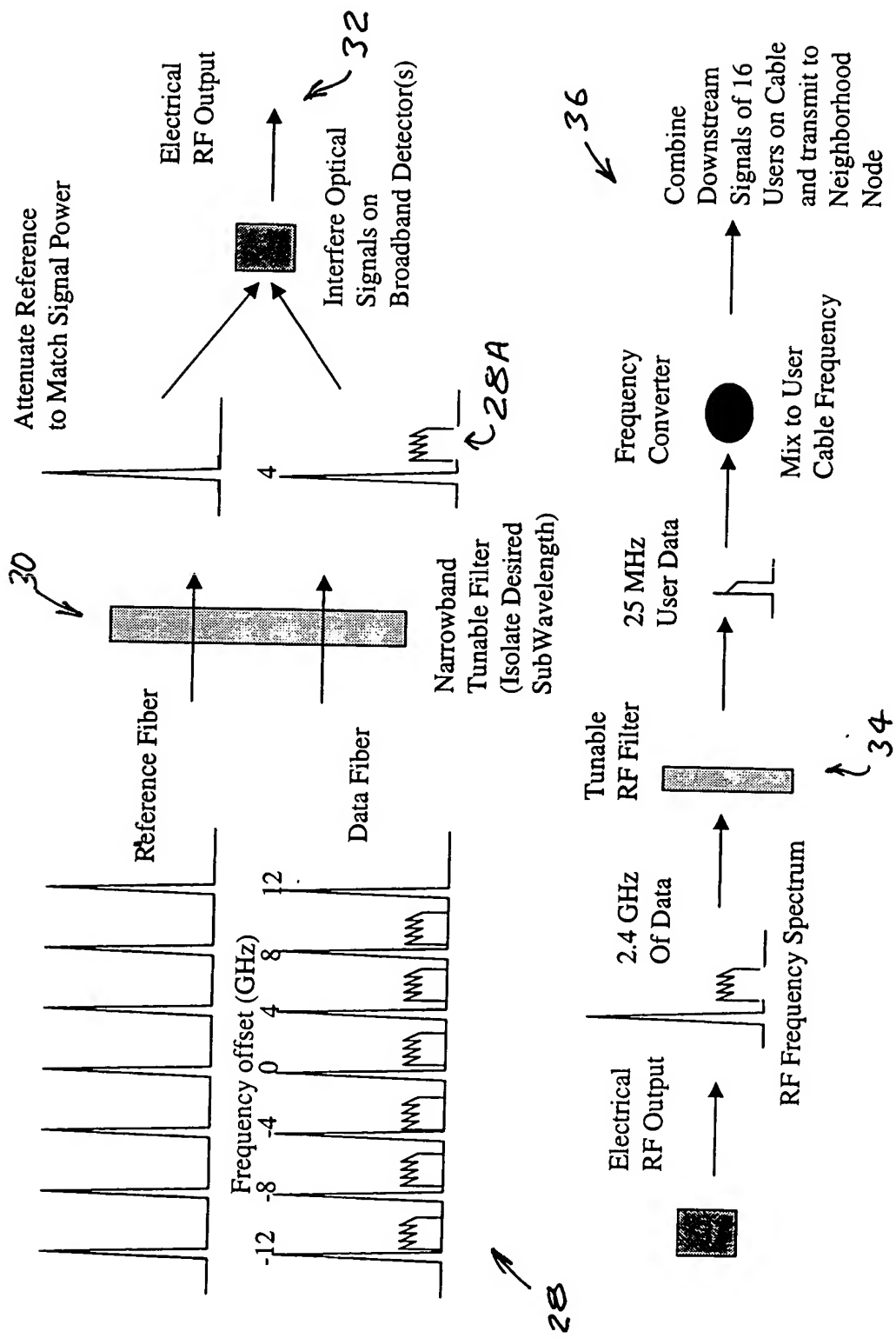


FIG. 6

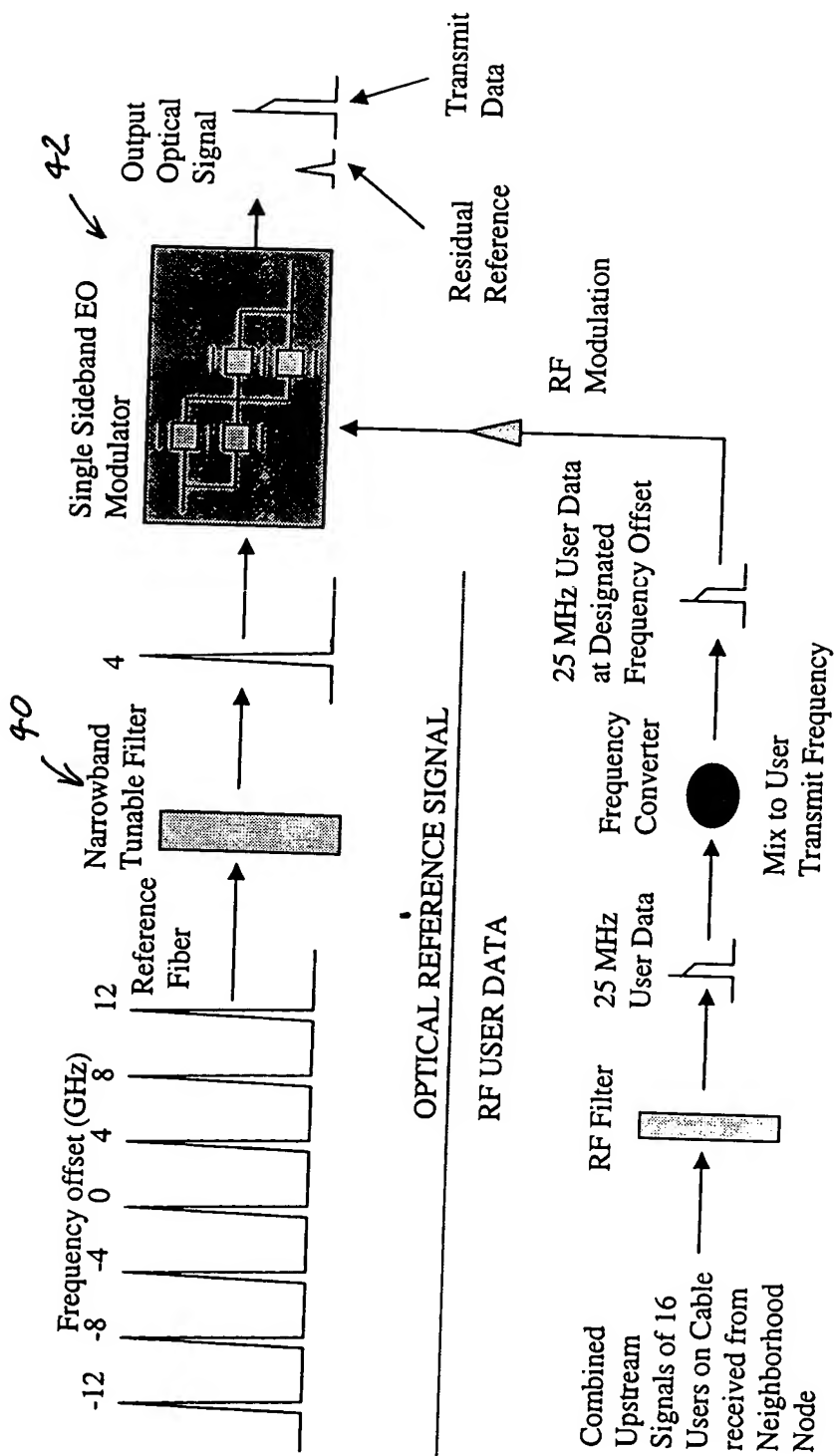
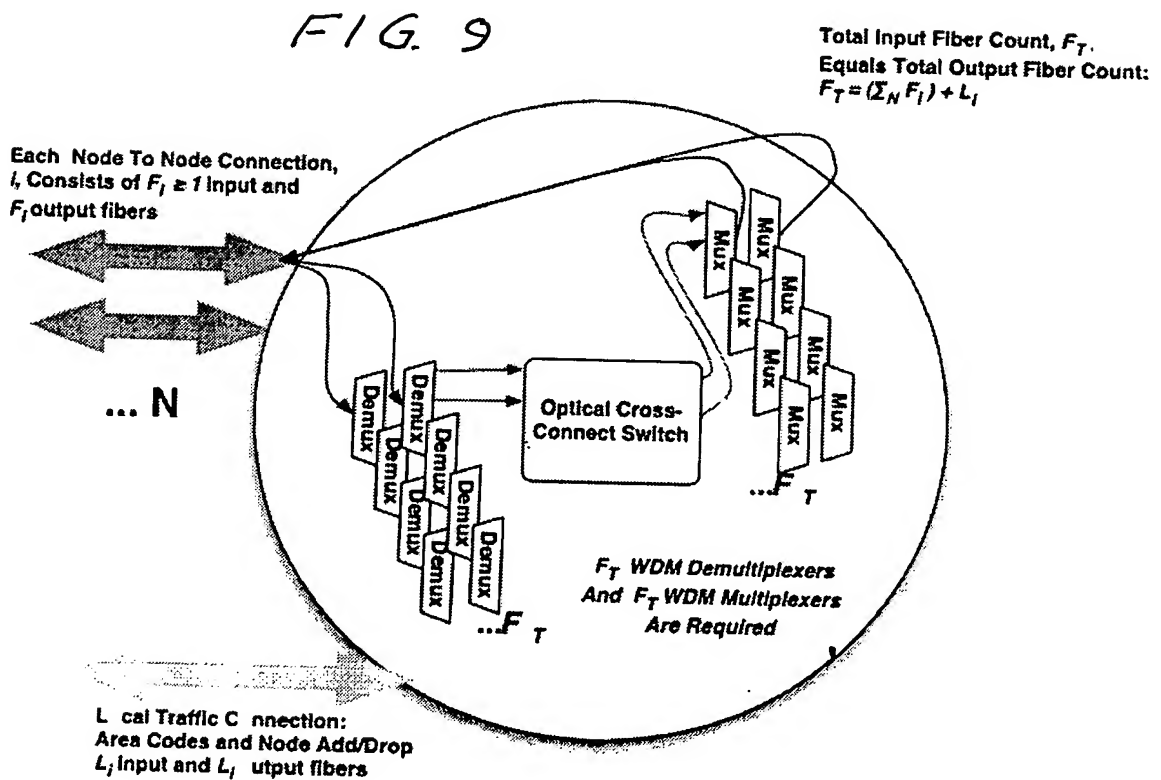
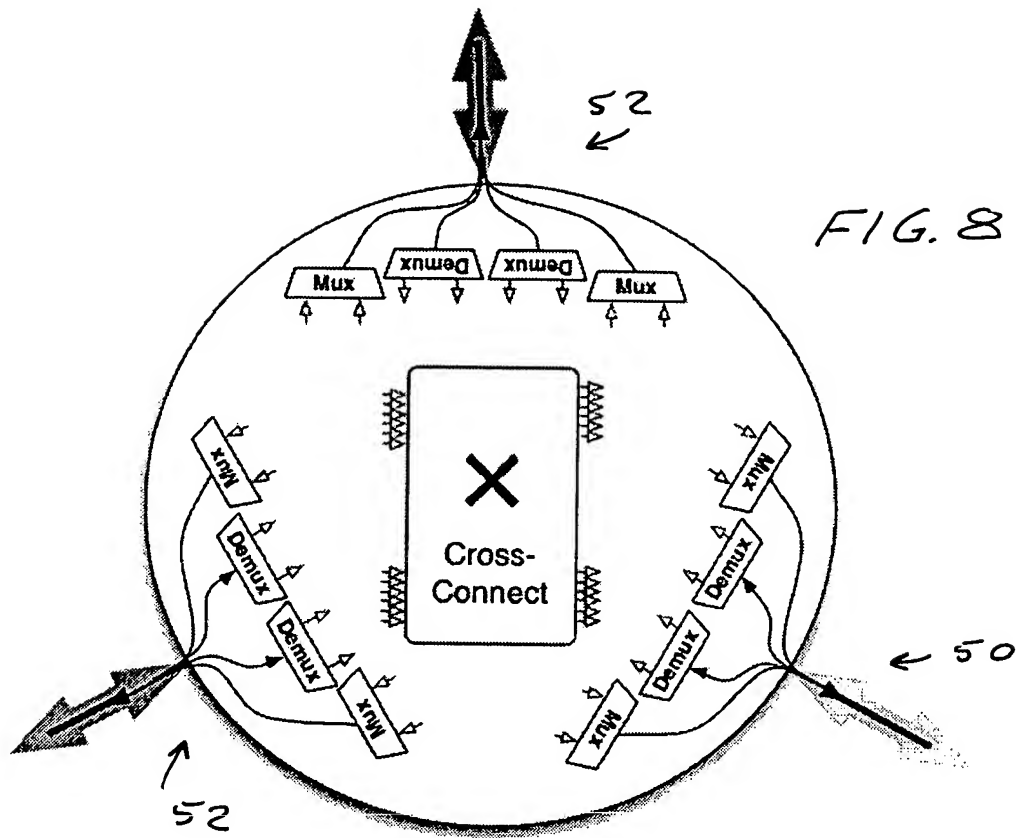


FIG. 7

44



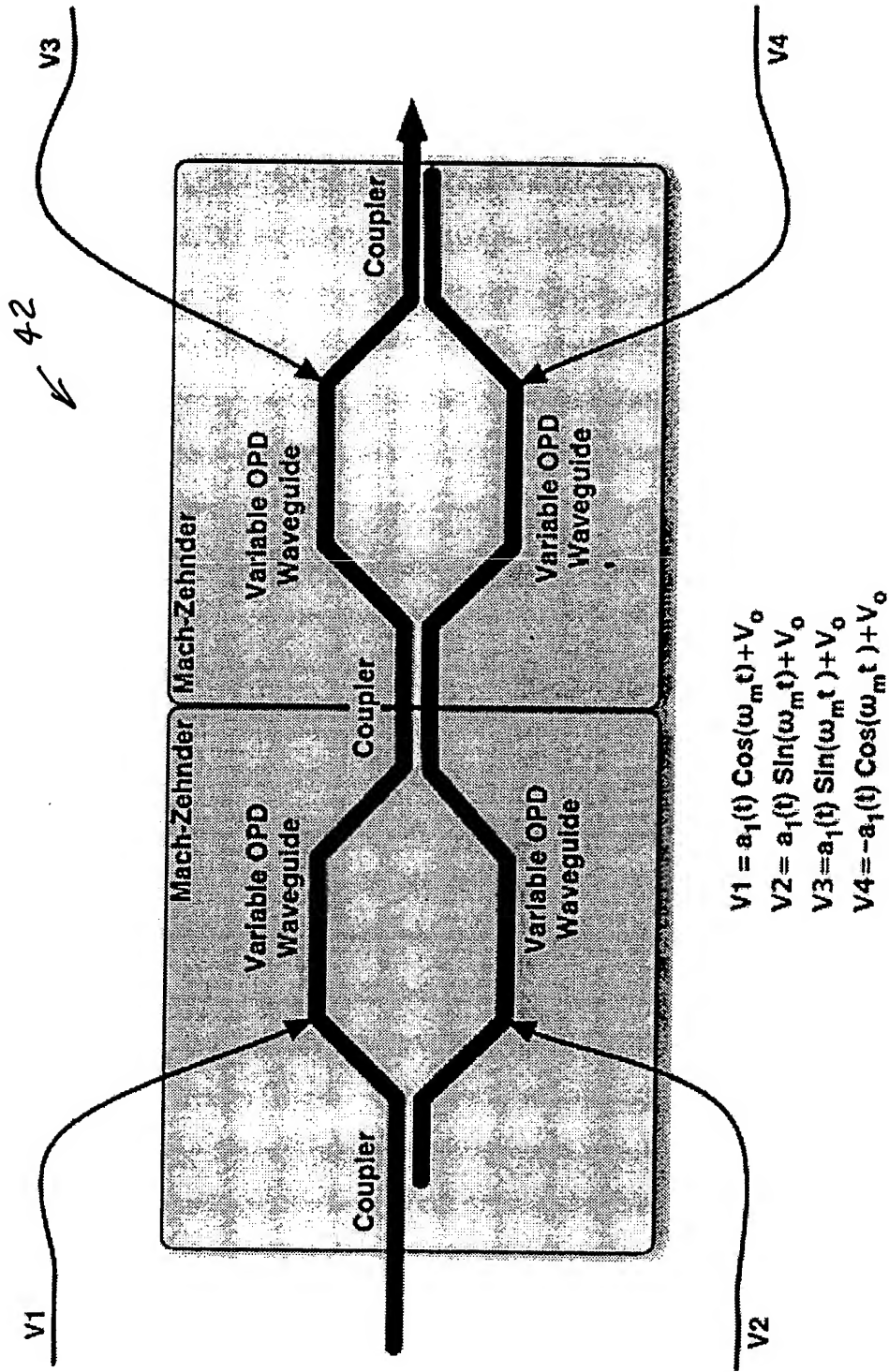


FIG. 10

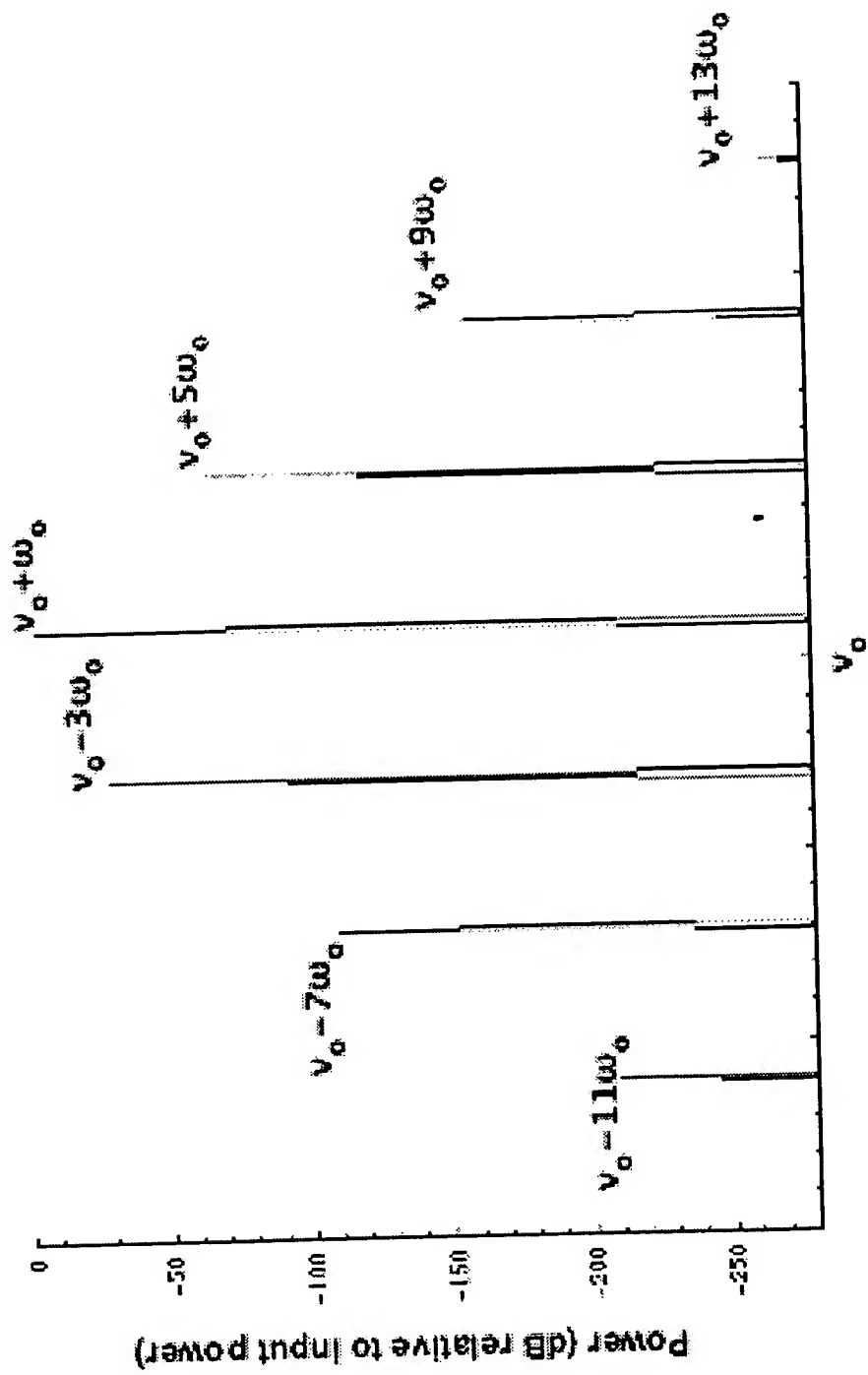


FIG. 11

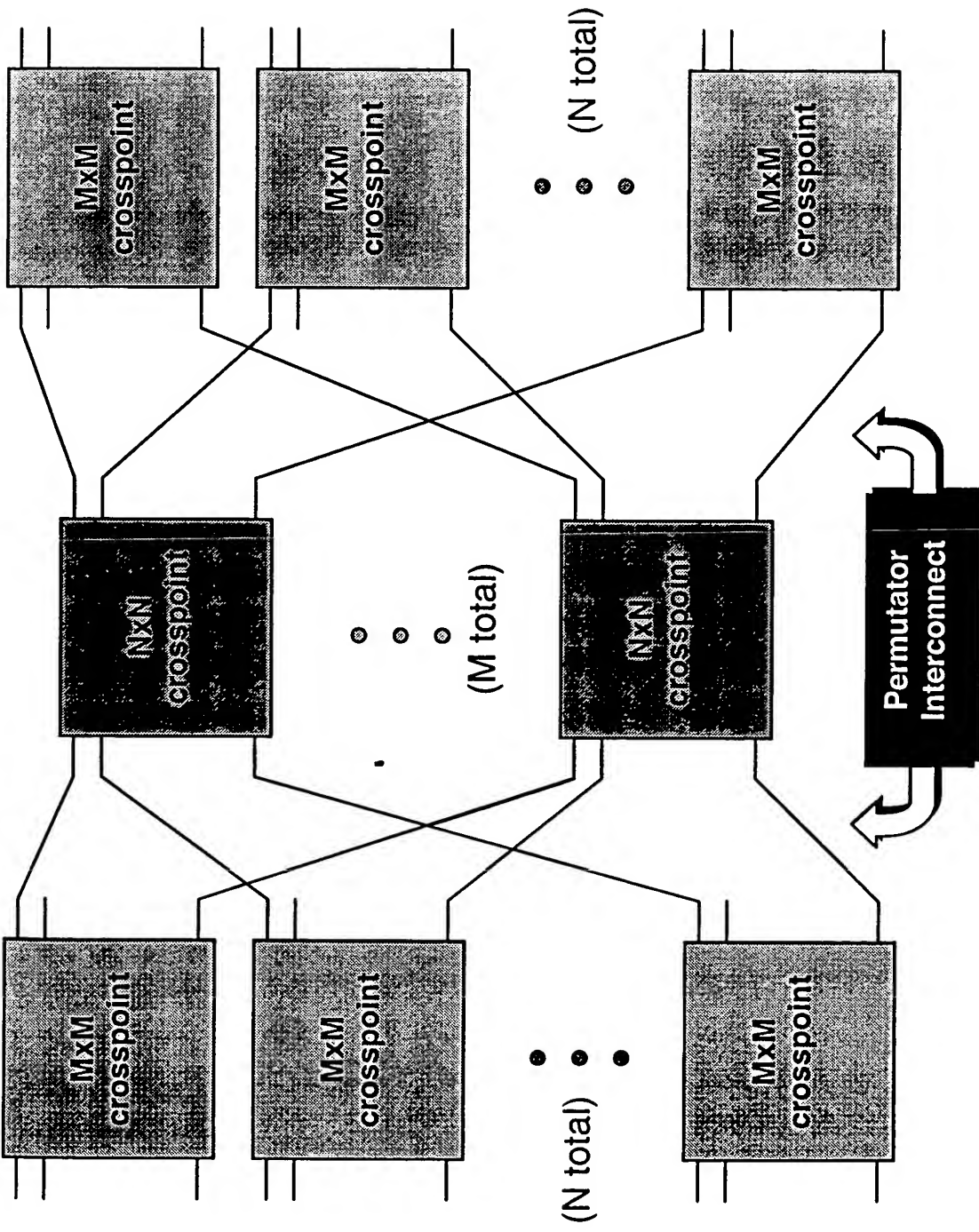


FIG. 12

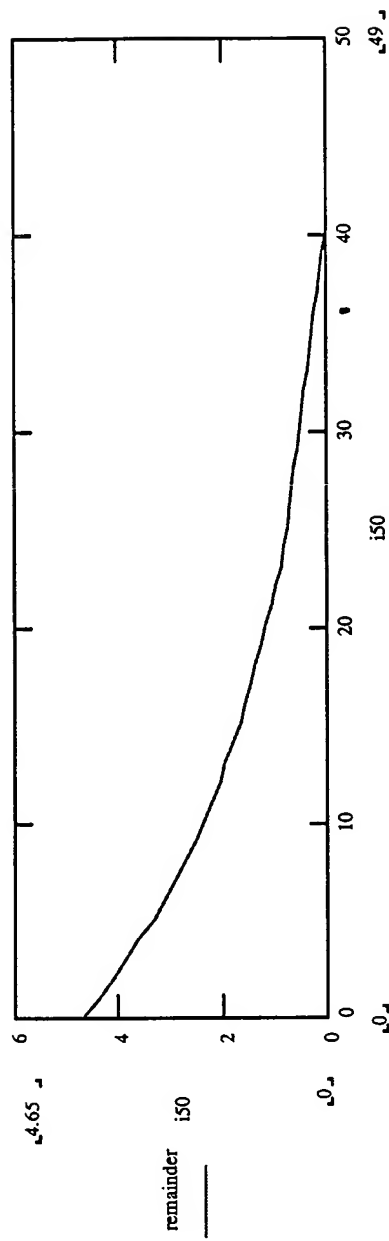


FIG. 14

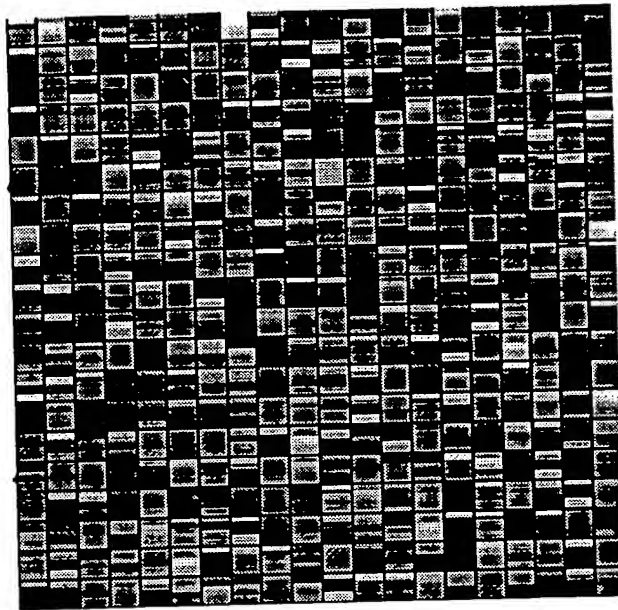


FIG. 15

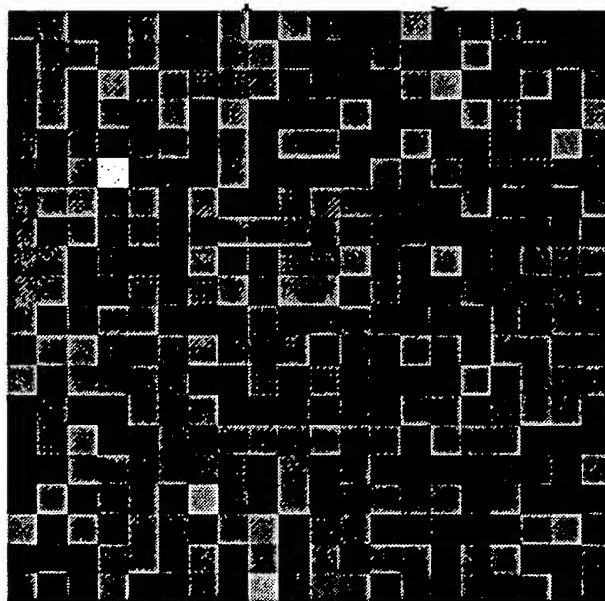


FIG. 13

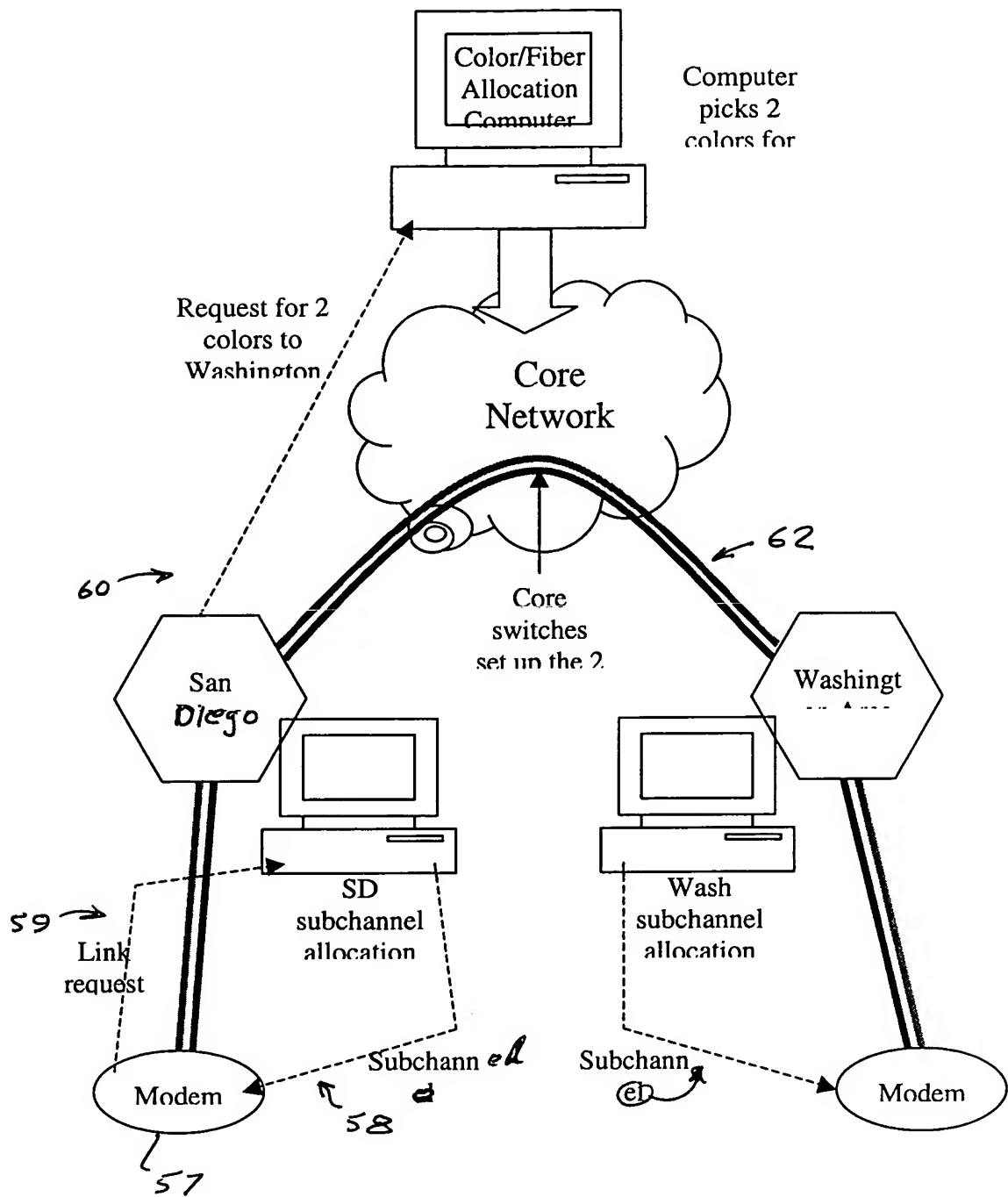


FIG. 16